Serviceanweisung

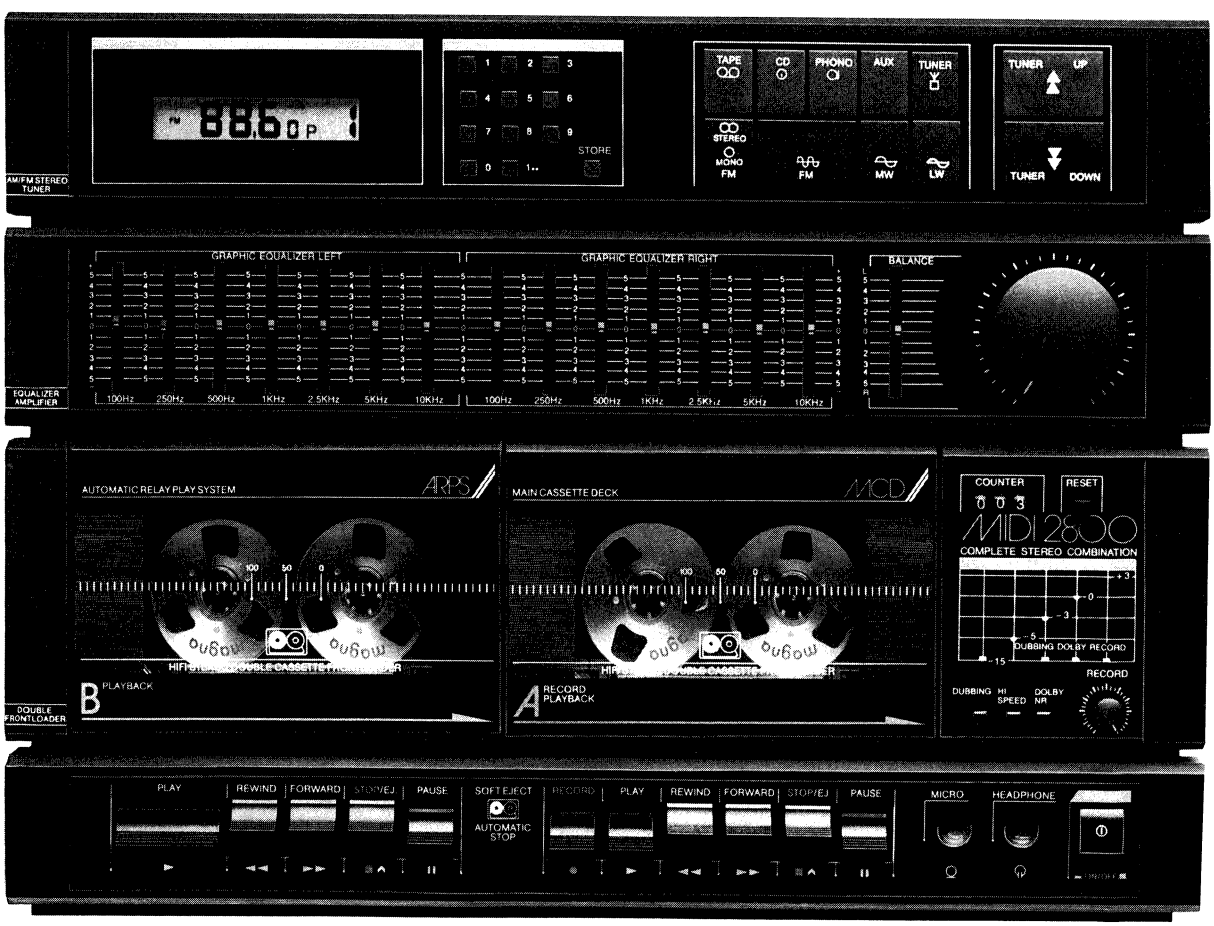
Service manual

MIDI 2800

Casseiver Ident-Nr. 3762000

Plattenspieler Ident-Nr. 3762100

AP23



Alignment procedure

Condition

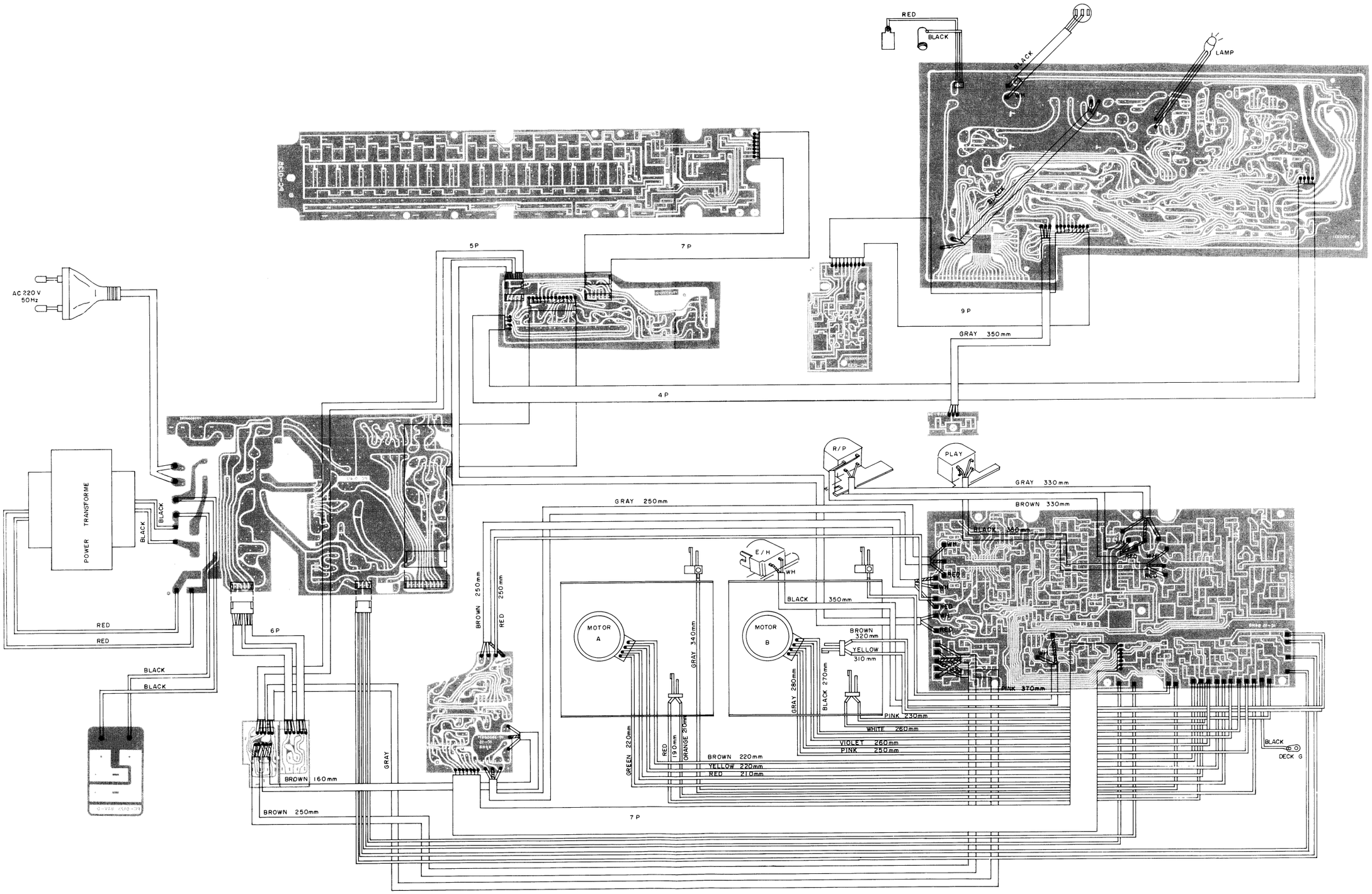
Amplitude Modulation (AM)
1. Modulation : 30% 1 KHz
2. Input level : 74dB / m (5mV / m) .
3. Generator output : IRE Loop 24 in (60cm) spacing.

Frequency Modulation (FM)
1. Modulation : 1000 Hz with 40 KHz
2. Input level : 60dB (1mV).
3. Generator output : To the antenna terminal through 75 ohm unbalanced dummy antenna.

Frequency Modulation (MPX)
1. Modulation : 1000 Hz,L or R channel only
Main carrier (L + R) 40 KHz, Dev.
Sub carrier (L - R) 40 KHz, Dev.
19 KHz pilot 6 KHz, Dev.

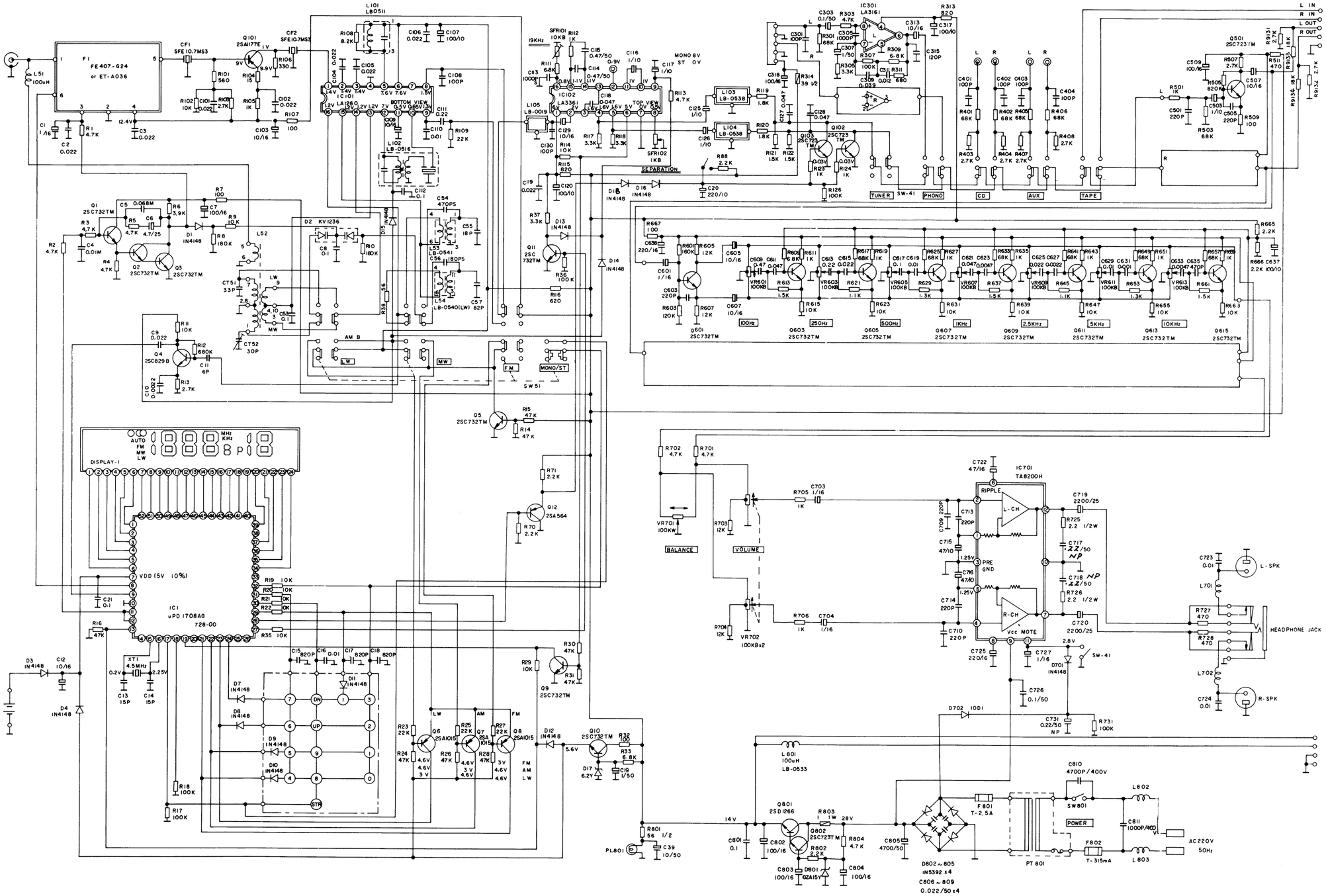
STEP	Signal or Sweep Generator		Dial Setting	Output Indicator	Adjustor	Adjust for
	Connection	Frequency		Connection		
	AM IF					
1.	Set the function selector to " MW "					
2.	To Loop antenna	455 KHz	Low end	IF Sweep generator R 210	L 102	Flat and MAX.
	MW RF					
3.						
4.	SAME AS STEP (2)	600 KHz	600 KHz	SAME AS STEP (3)	L 53	MAX.
5.	SAME AS STEP (2)		1000 KHz	SAME AS STEP (3)	AM BAR ANT L 52	MAX.
6.	SAME AS STEP (2)	1400 KHz	1400 KHz	SAME AS STEP (3)	CT 52	MAX.
7.	REPEAT (4) AND (6)		LW RF			
8.	Set the function selector to " LW "					
9.	SAME AS STEP (2)	137 KHz	Low end			137 ± 5 KHz
10.	SAME AS STEP (2)	290 KHz	High end			290 ± 5 KHz
11.						
12.	SAME AS STEP (2)	150 KHz		SAME AS STEP (3)	L 54	MAX.
13.	SAME AS STEP (2)	250 KHz		SAME AS STEP (3)	LW BAR ANT L 52	MAX.
14.	Repeat steps (12) and (13).					
	FM IF					
15.	Set the function selector to "FM "					
16.	Throught dummy ant	10.7 MHz	Low end	IF Sweep generator R 209	L 101	" S " curve
	FM 19 KHz Pilot signal					
17.				Frequency counter R 263	SFR 101	19 ± 0.01 KHz
	STEREO L.R. SEPRATION					
18.			98 MHz	VTVM SCOPE PILOT GENERATOR SSG	SFR 102	

Verdrahtungsplan
Wiring diagram



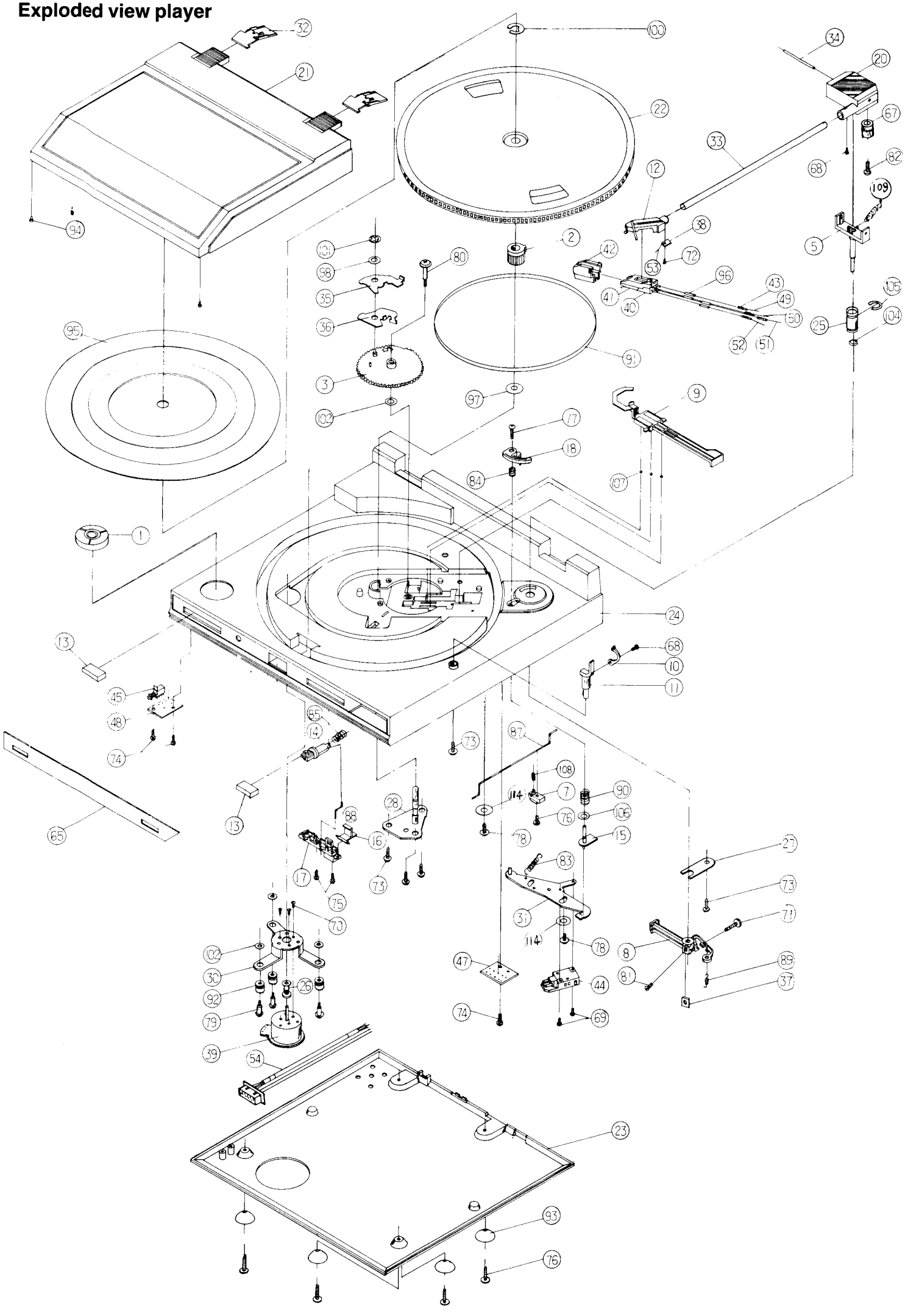
Schaltbild Tuner

Circuit diagram tuner



Explosionsdarstellung Plattenspieler

Exploded view player

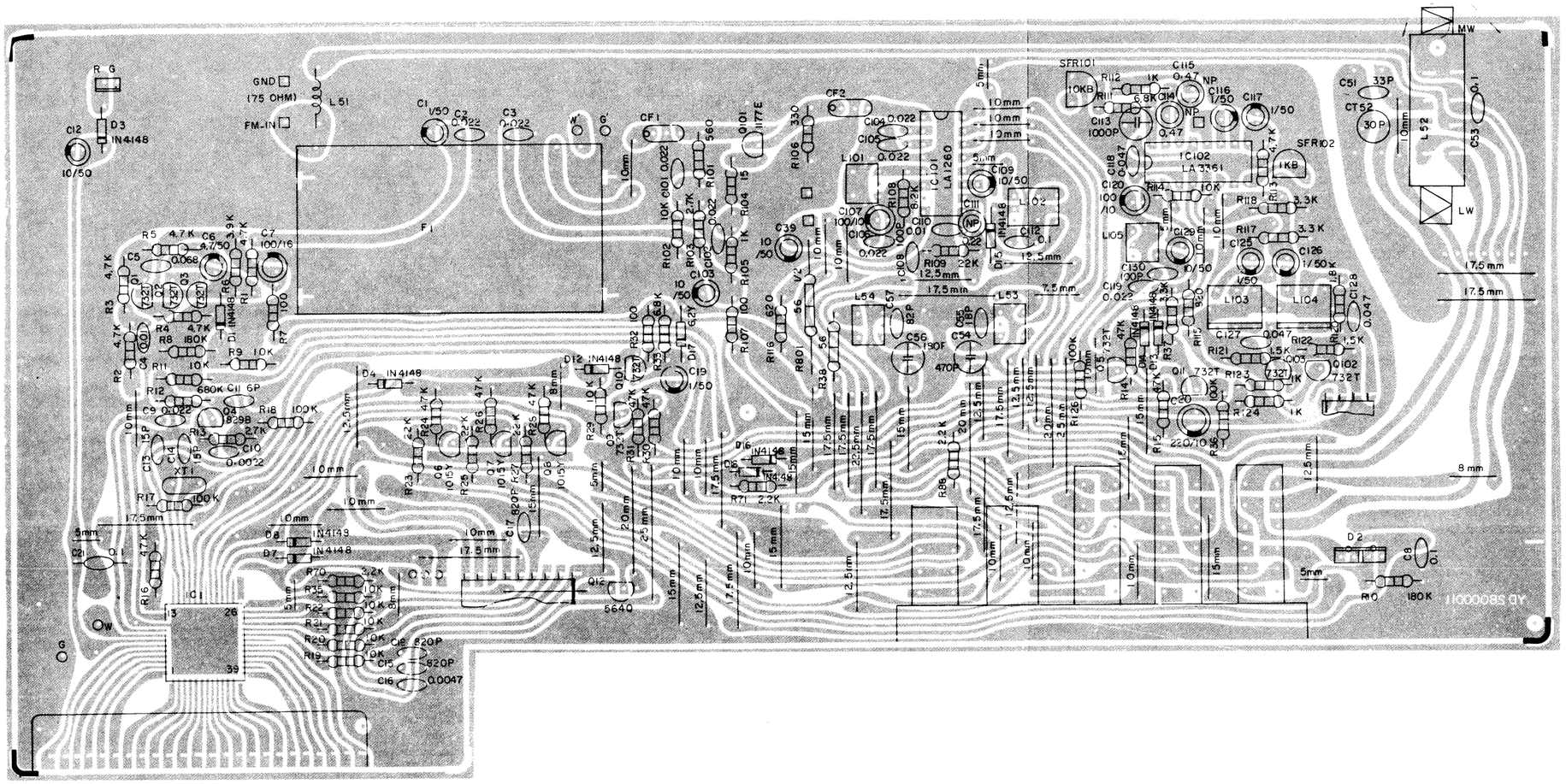


Ersatzteilliste Cassettenmechanik

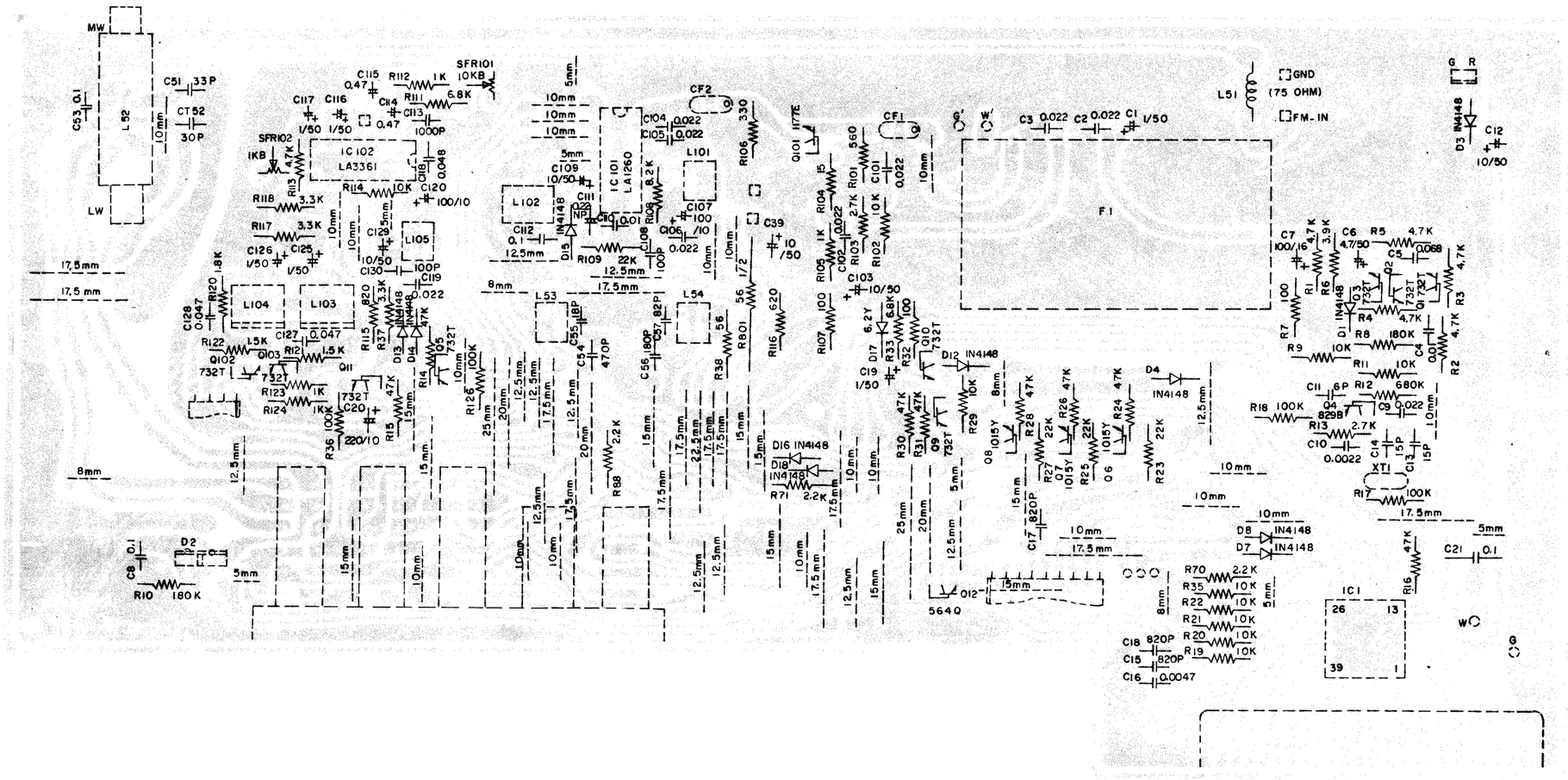
Spare parts list Cassette mechanism

Bestell-Nr./Part No.	Bezeichnung	Description	Position	Preisgruppe
40 050 00	**Cassettenmechanik A/W**	**Cassette mechanism Rec./PB**	C1/A	E 2
40 051 00	**Cassettenmechanik Wiedergabe**	**Cassette mechanism playback**	C2/B	E 0
32 420 00	Pausenrasthebel	Pause lever	11	A 5
32 421 00	Feder Pausenrasthebel	Pause lever spring	12	A 3
32 422 00	Stopper Pausenrasthebel	Pause stopper	13	A 2
32 423 00	Feder Tastenhebel (Stop, Pause)	Button lever spring (pause, stop)	14	A 2
32 424 00	Feder Aufnahmehebel	Record lever spring	16	A 3
32 425 00	Feder Starthebel	Play button lever spring	17	A 3
32 426 00	Feder Auslösehebel	Actuation spring	19	A 3
32 427 00	Feder Hebel	Auto lever spring	21	A 3
32 428 00	Feder Tastenhebel (Vor-, Rücklauf)	Button lever spring (FF, rewind)	22	A 3
32 874 00	Mikroschalter Play	Leaf switch	23	A 6
32 430 00	Kopfträger	Head base	26	A 9
32 474 00	Kopfträger Wiedergabe	Headbase playback	26	A 9
32 431 00	Stophebel kpl.	Sensing plate assembly	27 + 60	B 0
32 432 00	Feder Löschkopf	Spring erase head	28	A 3
32 433 00	Feder Kopfträgerplatte	Head panel spring	29	A 3
32 434 00	Schraube BA-Rolle	Screw pinch roller	33	A 2
32 435 00	Feder A/W-Kopf	Spring R/P head	34	A 3
32 436 00	Bandandruckrolle kpl.	Pinch roller assembly	35 + 30 + 24	B 6
32 437 00	Feder BA-Rolle	Pinch roller spring	36	A 3
34 347 00	Feder Auslösehebel	Spring actuator lever	37	A 1
32 438 00	Rutschkupplung kpl.	Clutch arm assembly	39+40+65+90+95	B 5
32 439 00	Feder Rutschkupplung	Clutch arm spring	40	A 3
32 440 00	Schraube Rutschkupplung	Clutch arm screw	41	A 2
34 205 00	Riemen Rutschkupplung	Clutch arm belt	42	A 4
32 442 00	Schwungmasse	Flywheel assembly	44 + 69 + 72 + 74 + 85	C 2
32 444 00	Zwischenradzahnradarm	Take-up gear plate	46	B 0
32 445 00	Zwischenzahnrad	Take-up gear	47	A 5
32 446 00	Feder Zwischenzahnrad	Take-up gear spring	48	A 3
32 447 00	Zahnrad Vorlauf	FF gear	49	A 5
32 448 00	Feder Wickelteller rechts	Back tension spring right	50	A 3
32 449 00	Wickelteller links	Supply reel		B 2
32 450 00	Wickelteller rechts	Take-up reel		B 2
32 451 00	Aufnahmesperrhebel	Record safety lever	53	A 5
32 452 00	Feder Wickelteller links	Back tension spring left	54	A 3
32 453 00	Gummipuffer Motor	Motor rubber	56	A 2
32 454 00	Schraube Motor	Motor collar screw	57	A 2
32 876 00	Motorpulley	Motor pulley	58	A 5
32 456 00	Antriebsriemen	Main belt	59	B 4
40 052 00	Gleithebel Eject	Eject slide lever	62	A 5
32 458 00	Feder Hebel Eject	Eject slide lever spring	63	A 3
32 459 00	Cassettenandruckfeder	Pack spring	64	A 5
37 778 00	A/W -Kopf	Rec./playback	66	B 6
37 779 00	Wiedergabekopf	Play head	67	B 5
24 513 00	Löschkopf	Erase head	67	B 9
37 780 00	Motor	Motor	68	C 7
32 461 00	Sicherungsscheibe Wickelteller	Polyslider washer reel	83	A 0
32 462 00	Sicherungsscheibe Schwungmasse	Polyslider washer flywheel	84	A 0
32 463 00	Microschalter Start	Leafswitch play	98	A 9

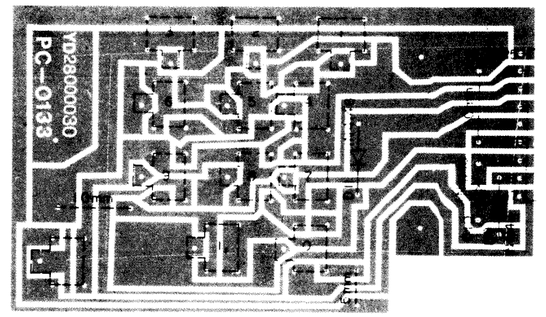
Tunerplatine
Tuner P.C.B.
Bestückungsseite/Top view



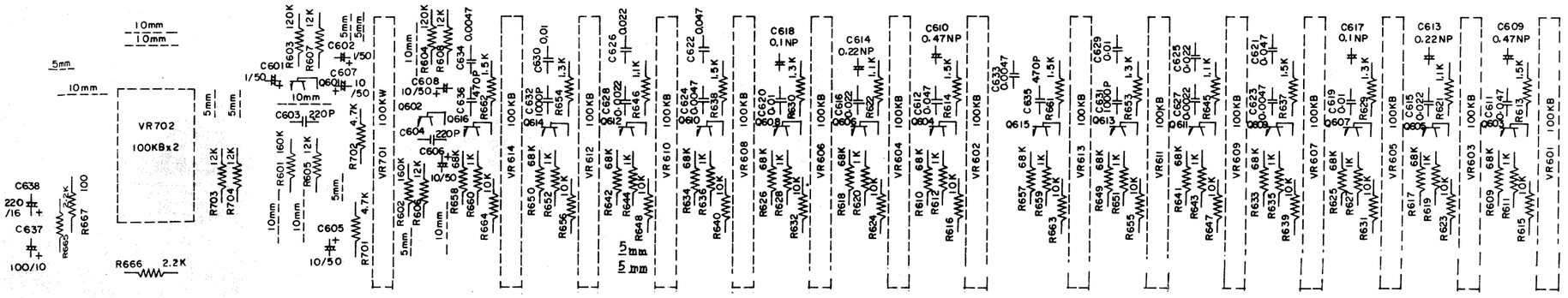
Tunerplatine
Tuner P.C.B.
Leiterbahnseite/Bottom view



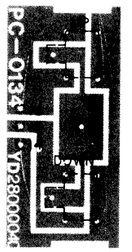
Programmtastenplatine
Preset key P.C.B
Leiterbahnseite/Bottom view



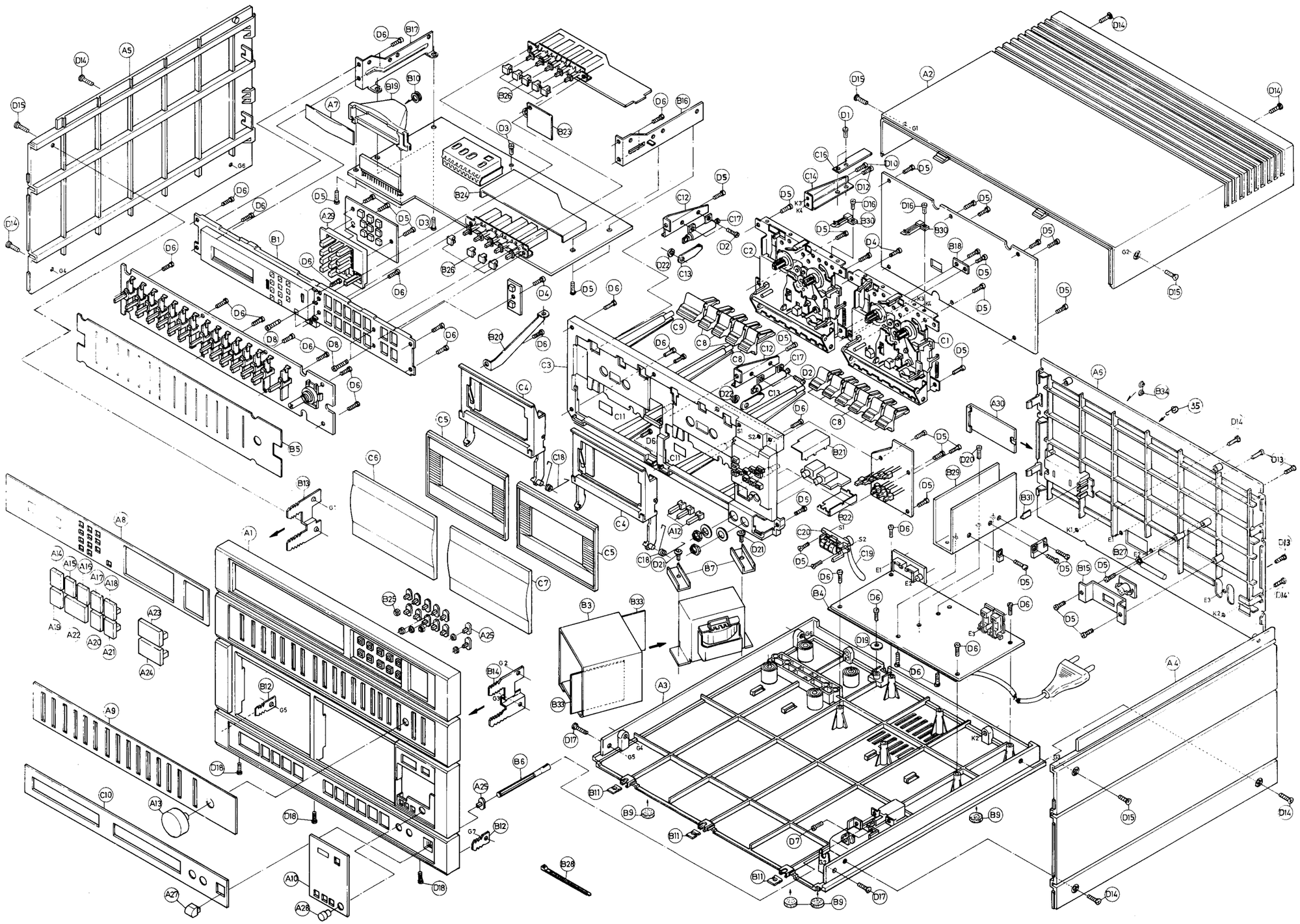
Equalizerplatine
Equalizer P.C.B.
Leiterbahnseite/Bottom view



Tunertastenplatine
Tuner key P.C.B.
Leiterbahnseite/Bottom view

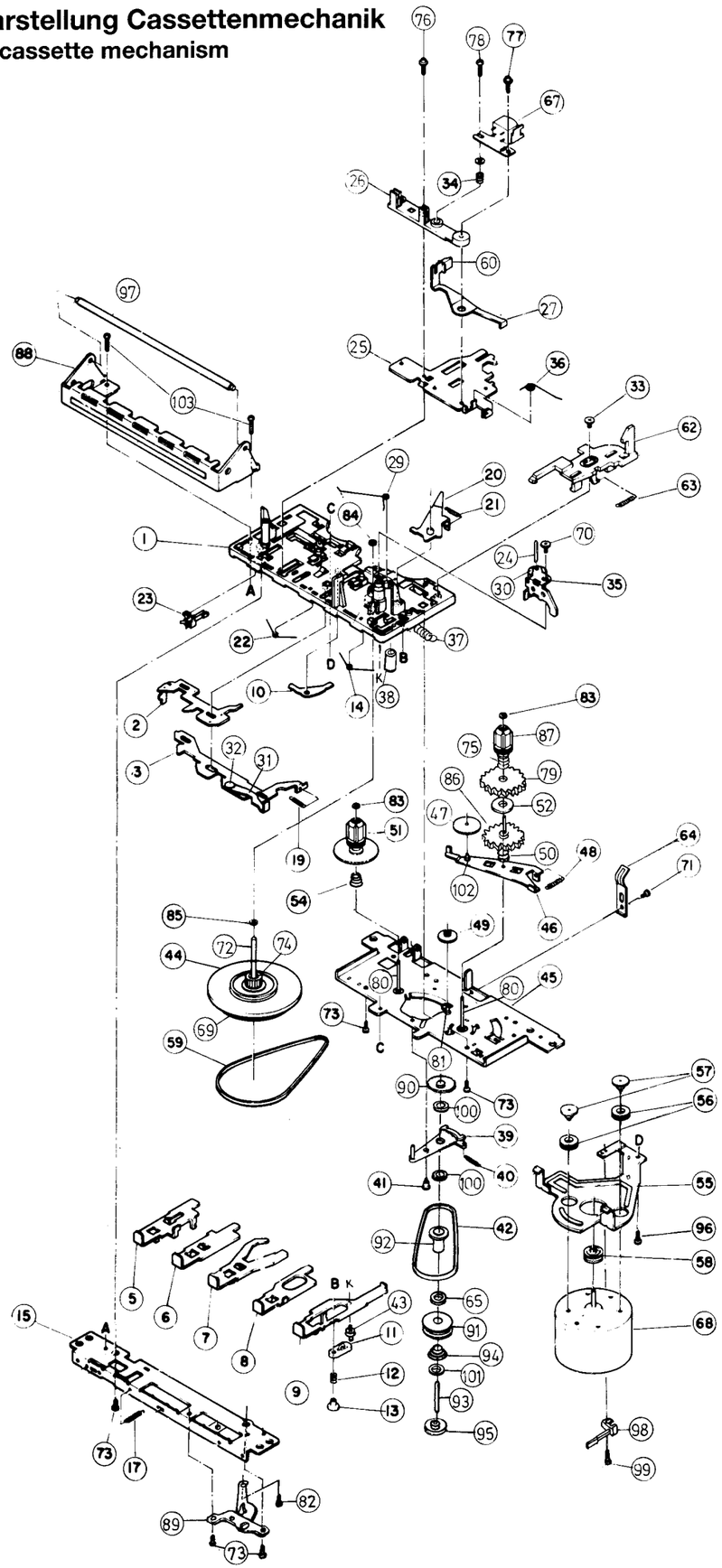


Explosionsdarstellung
Exploded view

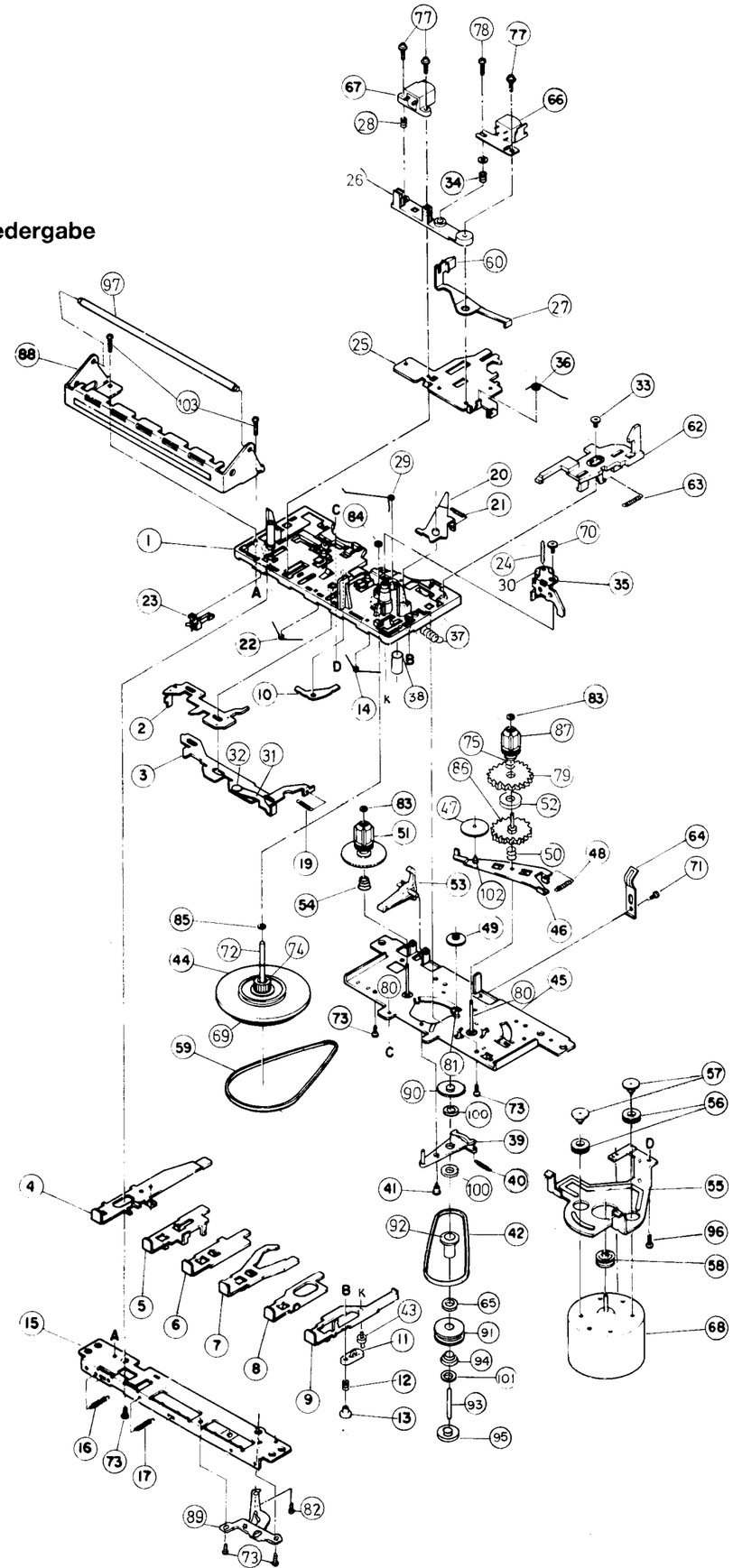


Explosionsdarstellung Cassettenmechanik
Exploded view cassette mechanism

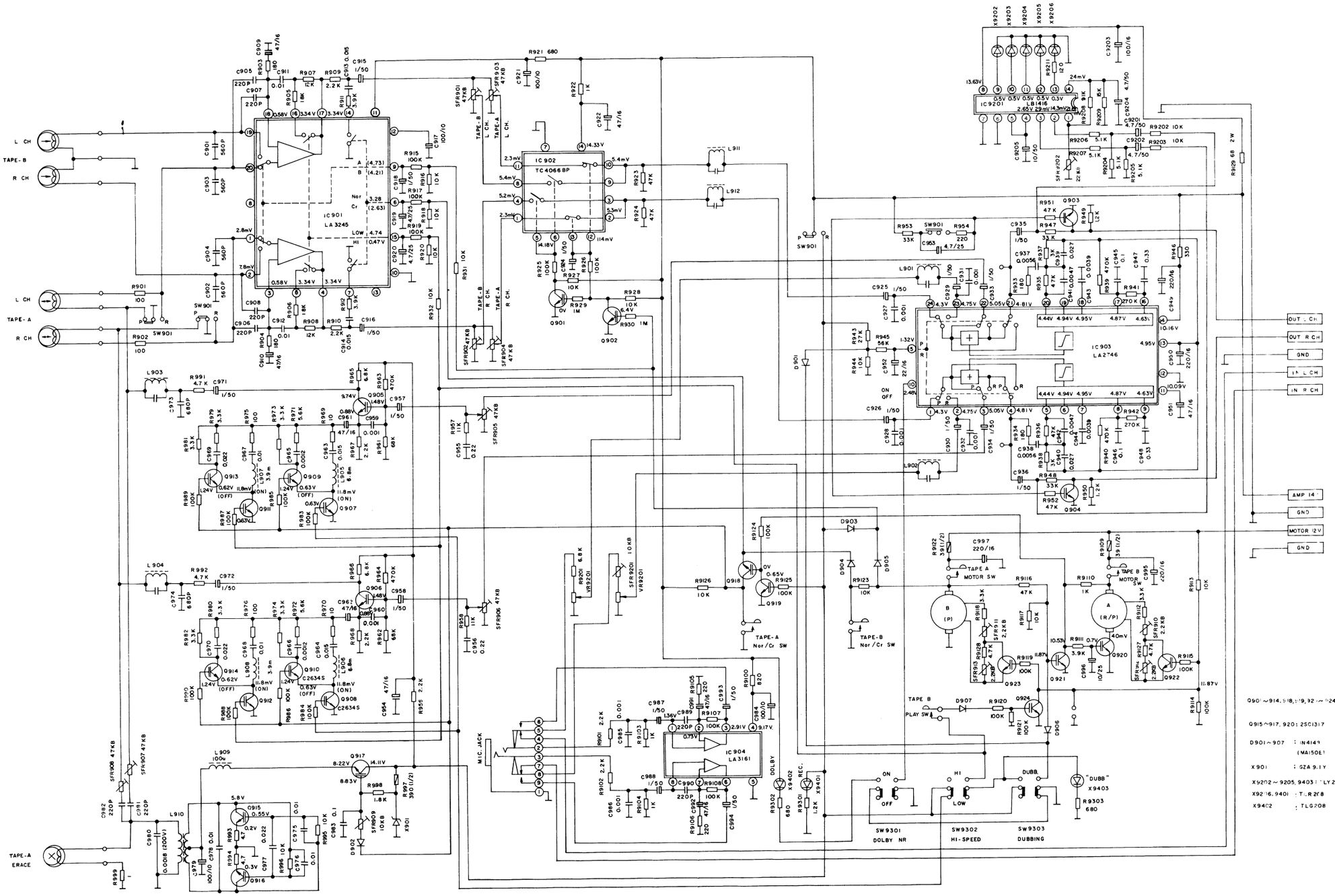
Cassette B
Wiedergabe
Playback



Cassette A
Aufnahme/Wiedergabe
record/playback



Schaltbild Cassette
Circuit diagram cassette



Q901~914, 918, 919, 922~924 2SC2634
2SC732TM)

Q915~917, 920: 2SC1317

D901~907 : 1N4149
(MA150E)

X901 : 6ZA 9.1Y

X9202~9205, 9403 : TLY208

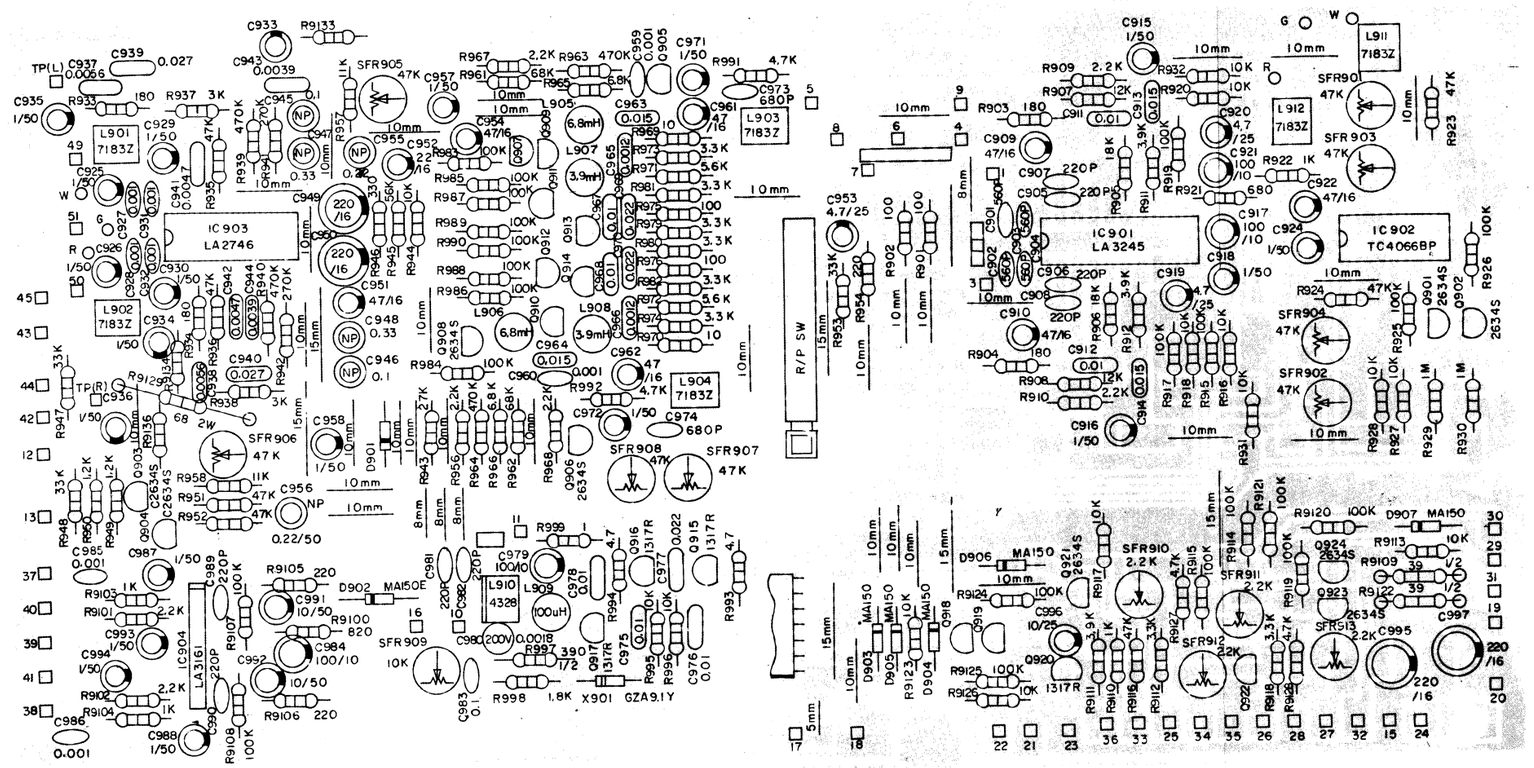
X9216, 9401 : TLR208

X9402 : TLG208

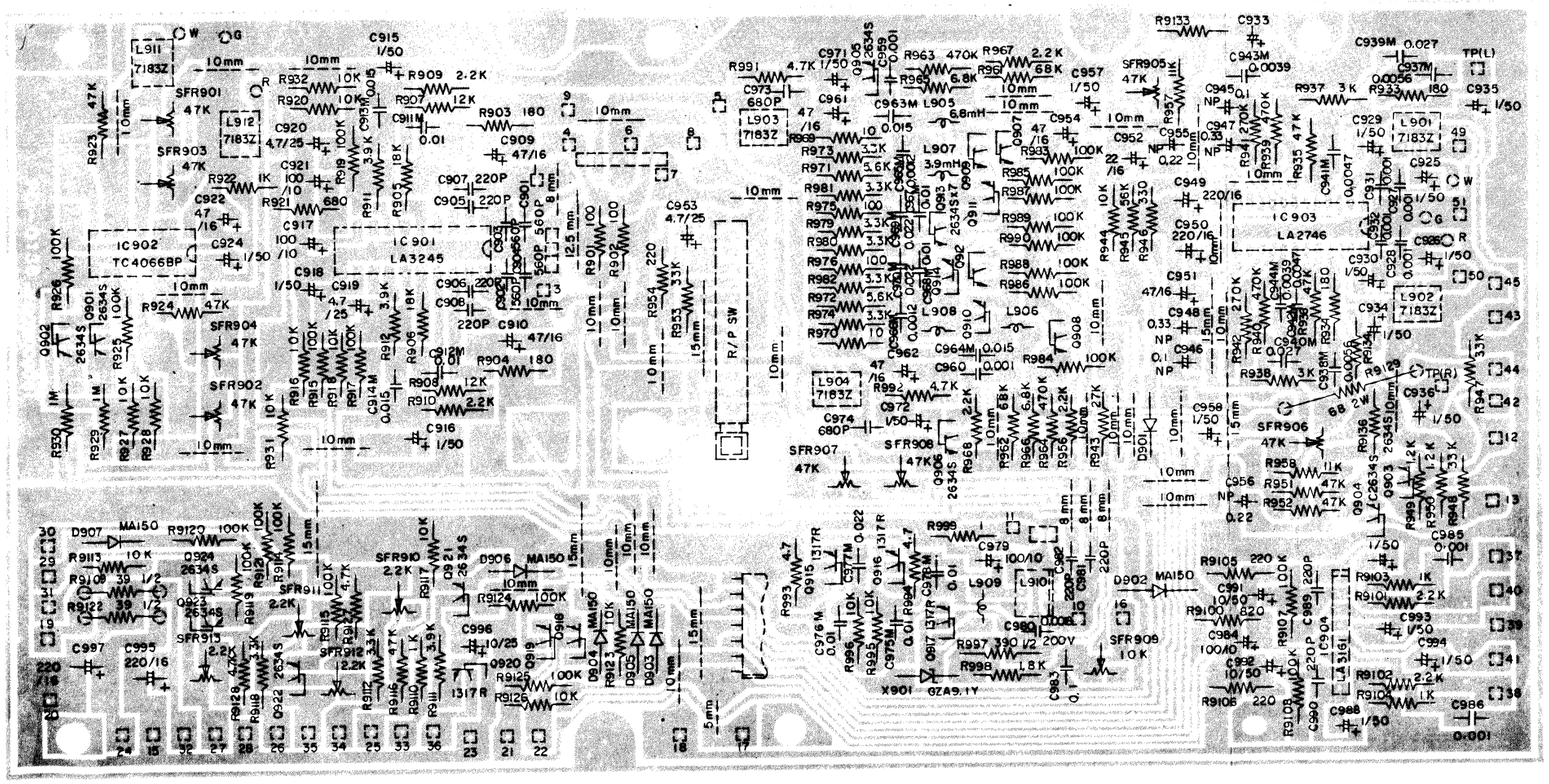
Platine Cassette

P.C.B. cassette

Bestückungsseite/Top view



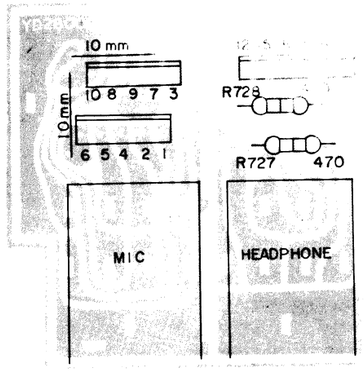
Leiterbahnseite/Bottom view



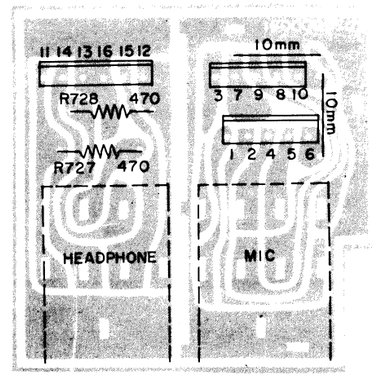
Buchsenplatine

Jack P.C.B.

Bestückungsseite/Top view



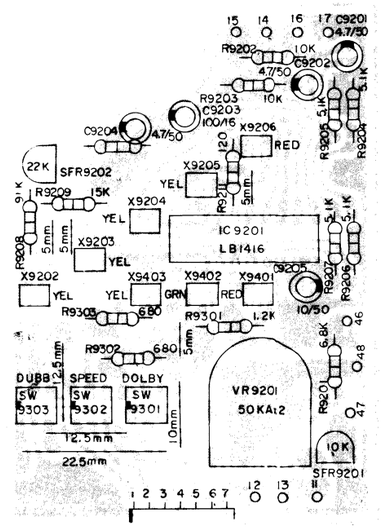
Leiterbahnseite/Bottom view



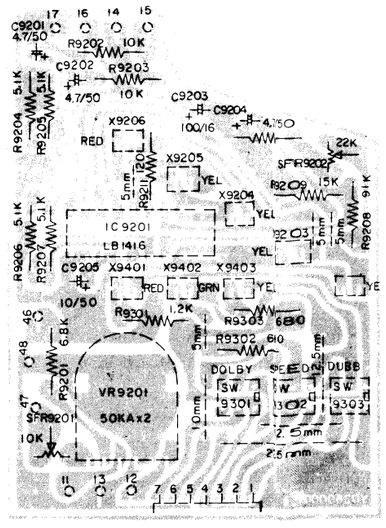
Anzeigeplatine Cassette

Indication P.C.B. cassette

Bestückungsseite/Top view



Leiterbahnseite/Bottom view



Ersatzteilliste elektrische Teile
Spare parts list electrical parts

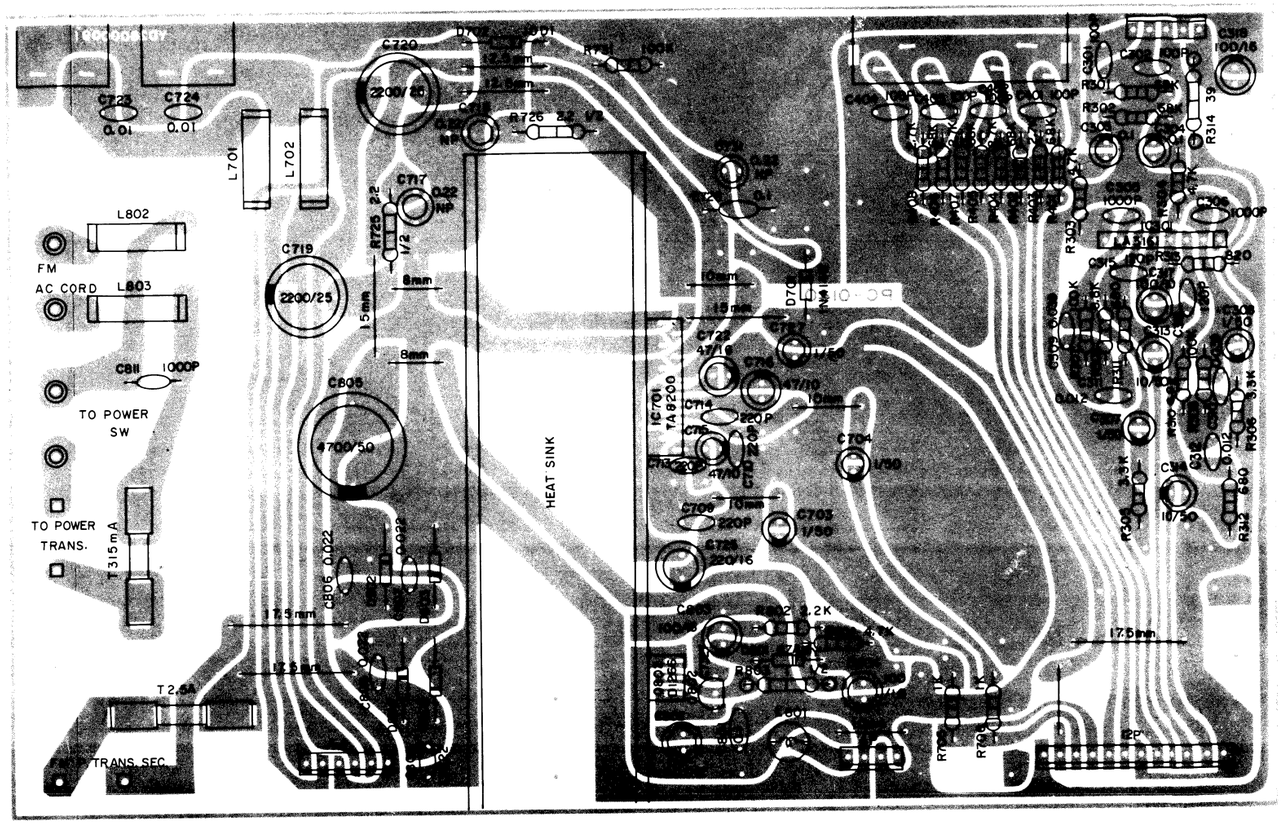
Bestell-Nr./Part No.	Bezeichnung	Description	Position	Preisgruppe
31 481 00	IC UPD 1708 A	IC UPD 1708 A	IC 1	D 2
26 797 00	IC LA 1260	IC LA 1260	IC 101	B 4
21 596 00	IC LA 3361	IC LA 3361	IC 102	B 1
32 997 00	IC LA 3161	IC LA 3161	IC 301, 904	B 0
40 287 00	IC TA 8200 AH	IC TA 8200 AH	IC 701	C 3
37 729 00	IC LA 3245	IC LA 3245	IC 901	B 4
32 998 00	IC TC 4066 BP	IC TC 4066 BP	IC 902	B 0
37 730 00	IC LA 2746	IC LA 2746	IC 903	C 3
13 558 00	IC LB 1416	IC LB 1416	IC9201	B 5
			...	A 3
24 533 00	Transistor 2 SC 2634 S	Transistor 2 SC 2634 S	Q 4	A 5
08 071 00	Transistor 2 SC 829 B	Transistor 2 SC 829 B	Q 6–8	A 6
12 959 00	Transistor 2 SA 1015 Y	Transistor 2 SA 1015 Y	Q 12	A 8
12 036 00	Transistor 2 SA 564	Transistor 2 SA 564	Q 101	A 3
37 957 00	Transistor 2 SA 1177 E	Transistor 2 SA 1177 E	Q 801	B 2
32 757 00	Transistor 2 SD 1266 Q, R	Transistor 2 SD 1266 Q, R	Q 915–917, 920	A 5
08 012 00	Transistor 2 SC 1317	Transistor 2 SC 1317		
			...	A 2
11 241 00	Diode 1 N 4148	Diode 1 N 4148	D 2	B 7
40 288 00	Diode KV 1236 Z 2	Diode KV 1236 Z 2	D 17	A 3
21 350 00	Zenerdiode GZA 6,2	Zenerdiode GZA 6.2	D 702	A 4
12 039 00	Diode 10 D 1	Diode 10 D 1	D 801	A 2
21 413 00	Zenerdiode GZA 15 Z	Zenerdiode GZA 15 Z	D 802–805	A 2
32 931 00	Gleichrichter IN 5392	Rectifier IN 5392	X 901	A 1
23 214 00	Diode ZPD 9,1	Diode ZPD 9.1		
			X 9202–9205, 9403	A 4
32 933 00	Leuchtdiode TLY 208 gelb	LED TLY 208 yellow	X 9206, 9401	A 3
32 932 00	Leuchtdiode TLR 208 rot	LED TLR 208 red	X 9402	A 9
29 241 00	Leuchtdiode TLG 208 grün	LED TLG 208 green	Display 1	C 9
40 289 00	Anzeigedisplay	Display		
			CF 1, 2	A 6
12 110 00	Filter-Keramik 10,7 MHz	Ceramic filter 10.7 MHz	XT 1	A 8
31 482 00	Quarz 4,5 MHz	Crystal 4,5 MHz	L 51	A 3
34 320 00	Drossel 100 µH	Inductor 100 µH	L 52	B 3
40 290 00	Ferritantenne LW/MW kpl.	Wavemagnet LW/MW assembly	L 53	A 3
40 291 00	Spule MW-Oszillator LB 0541	Coil MW oscillator LB 0541	L 54	A 3
40 292 00	Spule LW-Oszillator LB 30540	Coil LW oscillator LB 30540	L 101	A 4
40 293 00	Spule FM-ZF LB 0511	Coil FM-ZF LB 0511	L 102	B 4
40 294 00	Spule MW-ZF 455 kHz LB 0516	Coil MW-ZF 455 kHz LB 0516	L 103, 104	B 0
40 295 00	Filter MPX LB 0538	Filter MPX LB 0538	L 105	A 6
24 372 00	Spule AM	Coil AM	L 701, 702, 802, 803	A 1
34 324 00	Spule Netzleitung	Line filter coil	L 801, 909	A 4
37 784 00	Spule 100 MH	Coil 100 mH	L 901–904, 911, 912	A 7
34 031 00	Oszillatorspule	Coil oscillator	L 905, 906	A 4
37 782 00	Spule 6,8 MH	Choke coil 6.8 mH	L 907, 908	A 4
37 783 00	Spule 3,9 MH	Choke coil 3.9 mH	L 910	A 7
34 030 00	Löschoszillatorspule	Erase oscillator coil	CT 52	A 3
24 377 00	Trimmer-Kondensator	Trimmer capacitor		
			R 314, 9109, 9122	A 3
34 335 00	Sicherungswiderstand 390 Ohm ½ W	Fuse resistor 39 Ohm ½ W	R 803	A 3
40 296 00	Sicherungswiderstand 1 Ohm 1 W	Fuse resistor 1 Ohm 1 W	R 9129	A 3
40 297 00	Sicherungswiderstand 68 Ohm 2 W	Fuse resistor 68 Ohm 2 W		
			VR 601–614	A 9
40 298 00	Schieberegler 100 kB EQ	Slide resistor 100 kB EQ	VR 701	A 9
40 299 00	Schieberegler 100 kW Balance	Slide resistor 100 kW Balance	VR 702	B 1
40 300 00	Drehregler-Lautstärke	Rotary resistor volume	VR 9201	B 0
40 301 00	Drehregler-Aussteuerung	Rotary resistor record level		
			SW 41	C 0
40 302 00	Tastensatz 5fach Funktion	Key set 5-switch Function	SW 51	C 0
40 303 00	Tastensatz 4fach Bereich	Key set 4-switch wave	1 – STORE	A 3
34 606 00	Tastschalter Tuning/Programm	Push switch preset	SW 801	B 0
40 006 00	Netzschalter	Power switch	SW 901	A 8
34 033 00	A/W-Schiebeschalter	Rec./playback switch	SW 9301–9303	B 0
40 304 00	Tastenschalter Cassette	Push button cassette	B 30	A 6
40 305 00	Microschalter Bandsorte	Leaf switch tape select		
			F 1	D 6
40 306 00	Tuner FE 407/ET-A036	Tuner FE 407/ET-A036	PL 801	A 7
32 954 00	Lampe 12 V 80 MA	Lamp 12 V 80 mA		A 6
31 529 00	Mignonbatterie	Battery	PT 801	C 7
34 328 00	Netztrafo	Power transformer		
			ANT.	B 0
13 653 00	Buchse Antenne	Antenna jack	SPEAKER	A 8
40 031 00	Lautsprecherbuchse doppelt	Speaker jack double	PHONO	A 3
40 307 00	Buchse 5pol. Phono	5-pin jack	CD	B 0
40 308 00	Buchse Chinch 4fach	Chinch jack quadruple	HEADPHONE	B 0
13 986 00	Buchse Kopfhörer	Headphone jack	MICROPHONE	B 0
23 396 00	Buchse Klinken	Microphone jack		
				78
40 309 00	Tunerplatine	Tuner P.C.B.		E 0
40 310 00	Equalizerplatine	Equalizer P.C.B.		E 5
40 311 00	Platine Cassette	Tape P.C.B.		E 1
40 312 00	Netzteilplatine	Power supply P.C.B.		C 9
40 313 00	Funktionschalterplatine	Function switch P.C.B.		B 5
40 314 00	Programmtastenplatine	Pre-set P.C.B.		C 9
40 315 00	Anzeigeplatine Cassette	Indication P.C.B. Tape		C 5
40 316 00	Buchsenplatine	Jack P.C.B.		A 8
40 317 00	Tunertastenplatine	Tuner key P.C.B.		

Ersatzteilliste Gehäuseteile
Spare parts list housing parts

Bestell-Nr./Part No.	Bezeichnung	Description	Position	Preisgruppe
40 264 00	Frontblende	Front panel	A 1	C 7
37 993 00	Gehäusedeckel	Top cabinet	A 2	C 8
37 994 00	Gehäuseboden	Bottom cabinet	A 3	C 6
37 997 00	Seitenteil rechts	Side panel right	A 4	C 1
37 998 00	Seitenteil links	Side panel left	A 5	C 1
40 265 00	Rückwand	Rear panel	A 6	B 9
40 266 00	Anzeigefenster	Indication window	A 7	A 3
40 267 00	Abdeckblende Rundfunk	Decoration mask tuner	A 8	B 3
40 268 00	Abdeckblende Equalizer	Decoration mask equalizer	A 9	B 3
40 269 00	Abdeckblende Record Level	Decoration mask record level	A 10	A 7
40 270 00	Knopf Taste DOLBY, HIGH SPEED DUBBING	Knob button DOLBY, HIGH SPEED DUBBING	A 12	A 2
40 271 00	Knopf Dreh VOLUME	Knob rotary VOLUME	A 13	A 3
40 272 00	Knopf Taste TAPE	Knob button TAPE	A 14	A 3
40 273 00	Knopf Taste CD	Knob button CD	A 15	A 3
40 274 00	Knopf Taste PHONO	Knob button PHONO	A 16	A 3
40 275 00	Knopf Taste AUX	Knob button AUX	A 17	A 3
40 276 00	Knopf Taste TUNER	Knob button TUNER	A 18	A 3
40 277 00	Knopf Taste FM MONO/STEREO	Knob button FM MONO/STEREO	A 19	A 3
40 278 00	Knopf Taste MW	Knob button MW	A 20	A 3
40 279 00	Knopf Taste LW	Knob button LW	A 21	A 3
40 280 00	Knopf Taste FM	Knob button FM	A 22	A 3
40 281 00	Knopf Taste TUNER UP	Knob button TUNER UP	A 23	A 4
40 282 00	Knopf Taste TUNER DOWN	Knob button TUNER DOWN	A 24	A 4
37 991 00	Sicherungsknebel	Function button spacer	A 25	A 1
37 981 00	Knopf Taste Netz	Knob power button	A 27	A 3
40 283 00	Knopf Dreh Record Level	Knob rotary record level	A 28	A 3
40 284 00	Tastenknopf Einheit 1-Store	Knob unit preset 1-store	A 29	B 0
37 995 00	Deckel Batteriefach	Cover battery	A 30	A 3
40 013 00	Schaltstange Netz	Spacer power	B 6	A 2
40 022 00	Gummifuß	Gum foot	B 9	A 2
37 992 00	Feder Funktionsschalter	Spring function	B 25	A 1
40 026 00	Steckhülse Funktionsschalter	Spacer function switch	B 26	A 1
40 001 00	Cassettenfach	Cassette case	C 4	A 7
40 027 00	Cassettenfachdeckel	Cassette case cover	C 5	A 7
40 285 00	Cassettenfachfenster A	Cassette case window A	C 6	B 4
40 008 00	Cassettenfachfenster B	Cassette case window B	C 7	B 4
40 028 00	CR-Taste schmal	Cassette key small	C 8	A 3
40 029 00	CR-Taste breit	Cassette key large	C 9	A 3
40 286 00	Abdeckblende Cassette/Power	Decoratiion mask cassette/power	C 10	B 1
34 317 00	Blattfeder A/W-Schalter	Record spring plate	C 16	A 2
29 003 00	Dämpfer	Damping	C 17	A 5
40 012 00	Feder Cassettenfach	Spring cassette case	C 18	A 1
21 000 00	Zählwerkriemen	Counter belt	C 19	A 9
34 287 00	Zählwerk	Tape counter	C 20	B 3

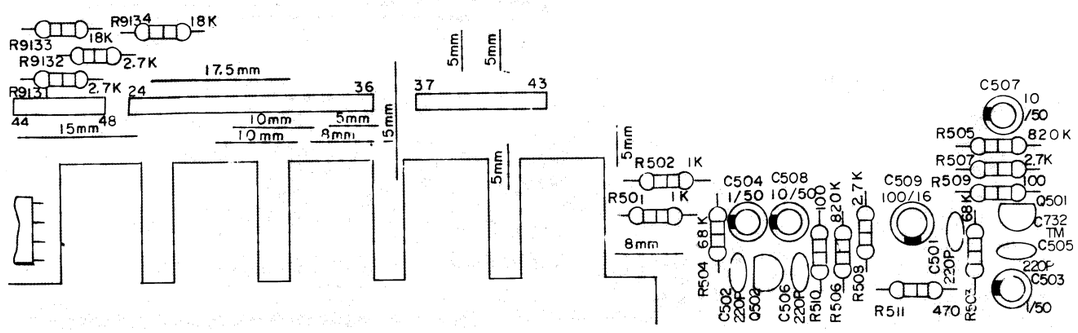
Netzteilplatine
Power supply P.C.B.

Bestückungsseite/Top view

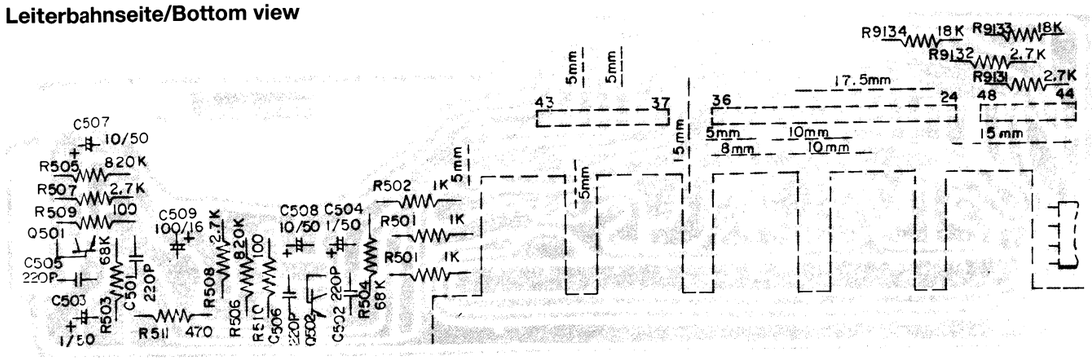


Funktionsschalterplatine
Function switch P.C.B.

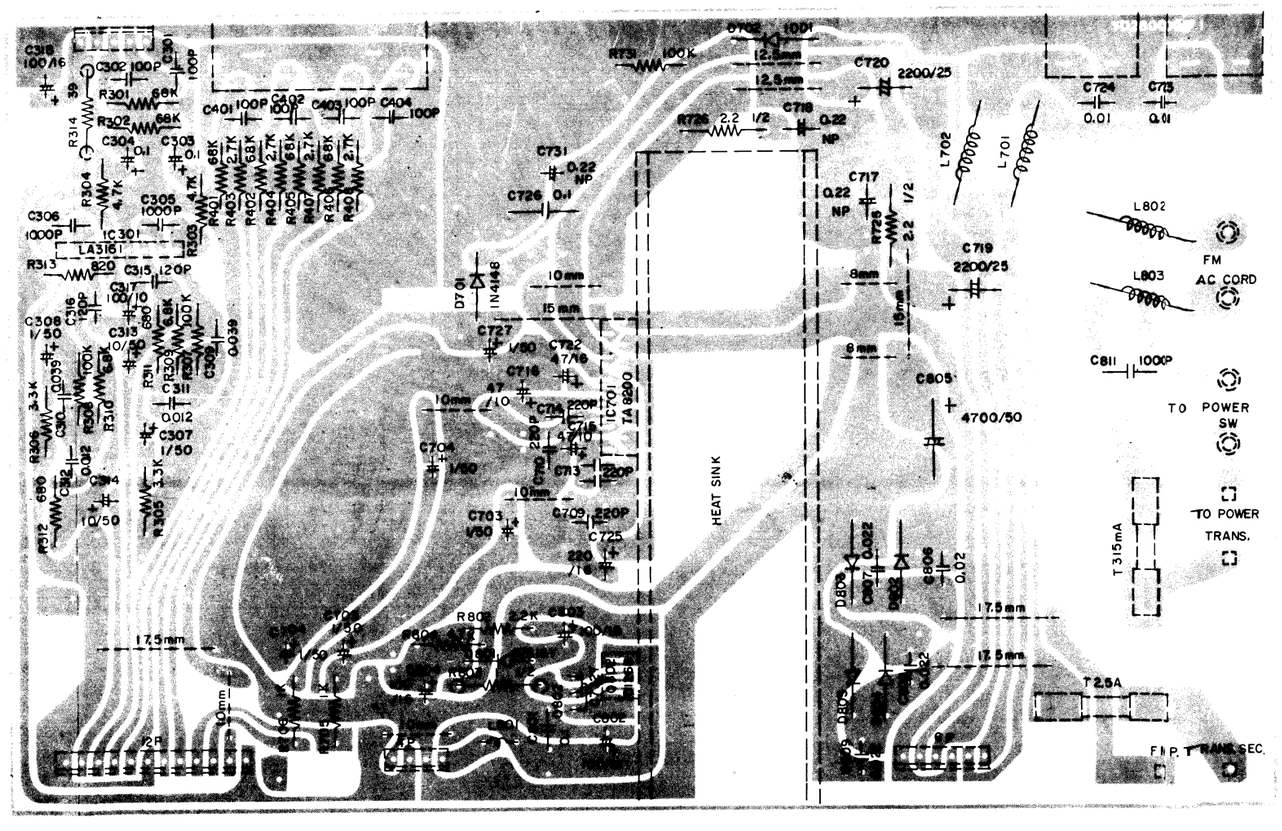
Bestückungsseite/Top view



Leiterbahnseite/Bottom view



Leiterbahnseite/Bottom view



Ersatzteilliste Plattenspieler
Spare parts list player

Bestell-Nr./Part No.	Bezeichnung	Description	Position	Preisgruppe
37 621 00	**Plattenspieler kpl. SBD 55**	**Record player cpl. SBD 55**		
32 817 00	Zentrierstück	RPM adaptor	1	A 2
32 818 00	Kurvenrad	Cam gear	3	A 9
32 819 00	Tonarmlager	Rotary shaft set	5	A 3
32 820 00	Rücksetzhebel	Return link	8	A 3
32 821 00	Schaltschieber	Starting lever	9	A 4
32 822 00	Clip Tonarmstütze	Pick-up cramper	10	A 0
32 823 00	Tonarmstütze	Pick-up stand	11	A 1
34 580 00	Tonarmkopf	Headshell	12	A 4
32 825 00	Knopf Taste	Plastic knob	13	A 4
32 826 00	Achse Knopf	Knob shaft	14	A 2
32 827 00	Druckplatte Lift	Oil shaft	15	A 2
32 828 00	Achsenhalterung	Press set	17	A 2
32 829 00	Liftbügel	Lifter	18	A 2
32 830 00	Tonarmhalterung	Tonearm rear set	20	A 6
32 831 00	Abdeckhaube	Dust cover	21	C 1
32 832 00	Plattenteller kpl.	Platter	22+2	C 3
32 833 00	Gehäuseboden	Bottom plate	23	B 8
32 834 00	Gehäuseoberteil	Panel	24	D 1
32 835 00	Lagerhülse	Tonearm shaft set	25	A 5
32 836 00	Motorpulley	Capstan	26	A 4
32 837 00	Plattentellerlager	Steel plate	28	A 3
32 838 00	Haubenscharnier	Steel plate	32	A 5
32 839 00	Tonarmrohr	Tonearm tube	33	A 7
32 840 00	Stift	Pin	34	A 0
32 841 00	Abschaltklinke A	Friction link	35	A 1
32 842 00	Abschaltklinke B	Actuating link	36	A 2
32 843 00	Gewindeplatte	Fixing plate	37	A 0
32 844 00	Massekontakt	Ground sheet	38	A 1
32 845 00	Motor kpl.	Motor	39	C 5
34 581 00	Magnetsystem	Cartridge magnet	40	C 9
34 374 00	Abtastnadel ATN 91	Stylus	41	B 9
32 848 00	Nadelschutz	Stylus cover	42	A 3
32 850 00	Mikroschalter	Micro switch	44	B 0
32 851 00	Verbinderplatine	Connection P.C.B.	47	A 0
32 852 00	Schalterplatine Lift kpl.	Switch P.C.B.	48/45	B 0
32 853 00	Tonarmleitung	Tonearm wire	49–53	A 5
32 854 00	Anschlußkabel	Connector 5 P	54	B 1
32 855 00	Frontblende Player	Front panel	65	B 3
32 856 00	Zugfeder	Spring	83	A 1
32 857 00	Feder Liftbügel	Spring	84	A 0
32 858 00	Feder Achse	Spring	85	A 0
32 859 00	Liftstange	Pendulum	87	A 3
32 860 00	Feder Knopfrastung	Steel cramper	88	A 0
32 861 00	Feder Rücksetzhebel	Spring	89	A 0
32 862 00	Feder Druckplatte	Spring	90	A 1
32 863 00	Antriebsriemen	Belt	91	B 1
32 864 00	Gehäusefuß	Rubber foot	93	A 2
32 865 00	Plattentellerbelag	Rubber mat	95	B 6
32 866 00	Lagerscheibe	Washer	97	A 1
32 867 00	Scheibe Klinke	Washer	98	A 0
32 868 00	Sicherungsring Teller	E-Ring washer	100	A 0
32 869 00	Sicherungsring Klinke	Retaining clip	101	A 0
32 870 00	Sicherungsring Lager	Washer	104	A 0
32 871 00	Sicherungsring Lager	Washer	105	A 0
32 872 00	Kugel	Steel ball	107	A 0
32 873 00	Feder Liftstange	Spring	108	A 0